

Figure 1 Comparison of H_2S adsorption on SiO_2 and $\text{AgNO}_3/\text{SiO}_2$ at 70°C

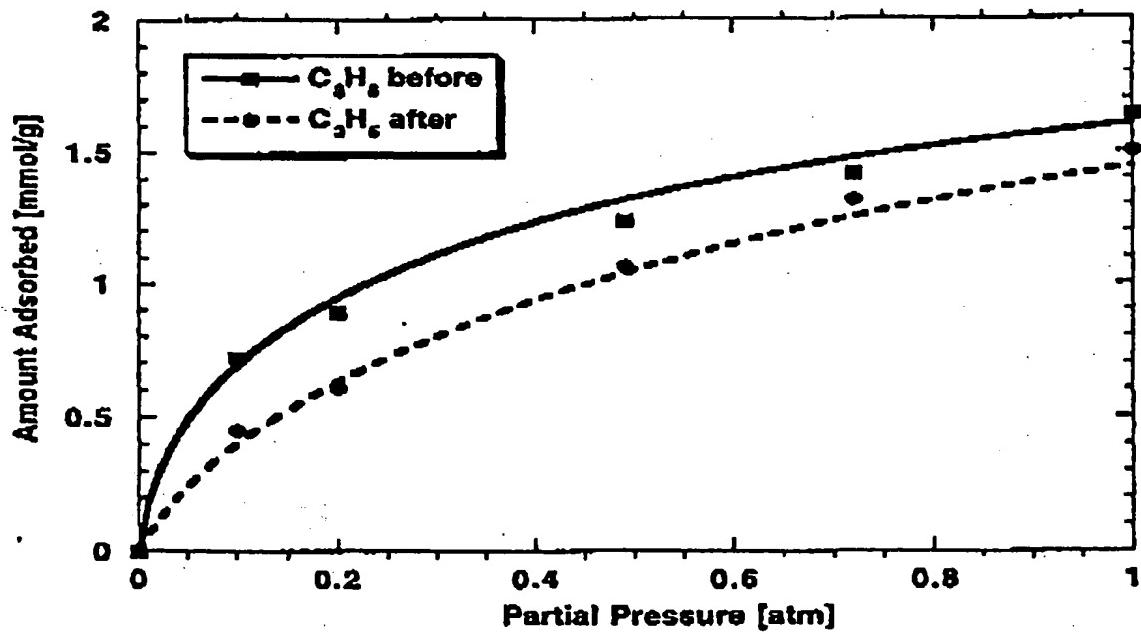


Figure 2 H_2S effect on olefin adsorption on $\text{AgNO}_3/\text{SiO}_2$.

C_2H_4 Cyclic Adsorption on $AgNO_3/SiO_2$

Isotherm @ 50 °C; P = 1 atm

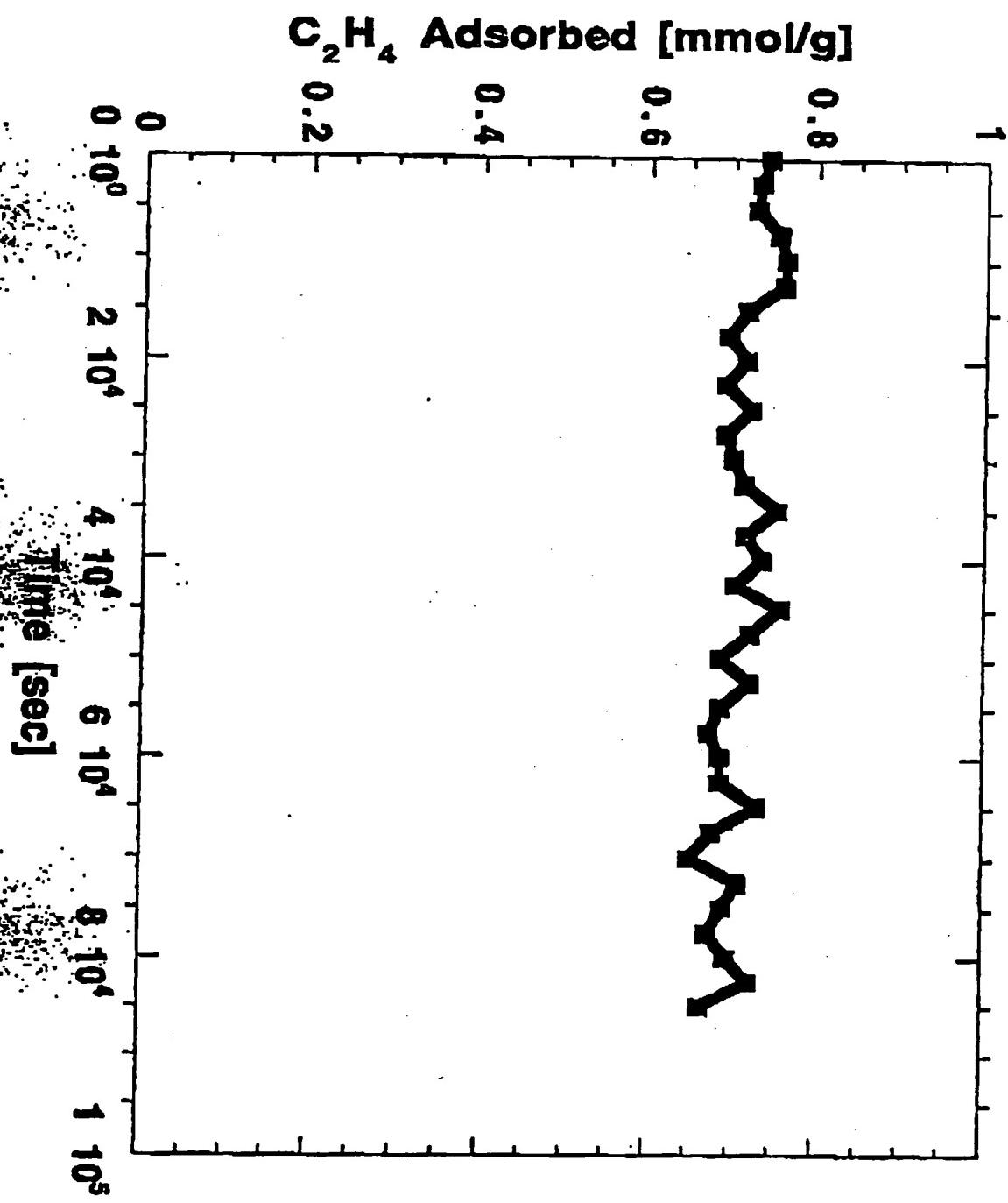
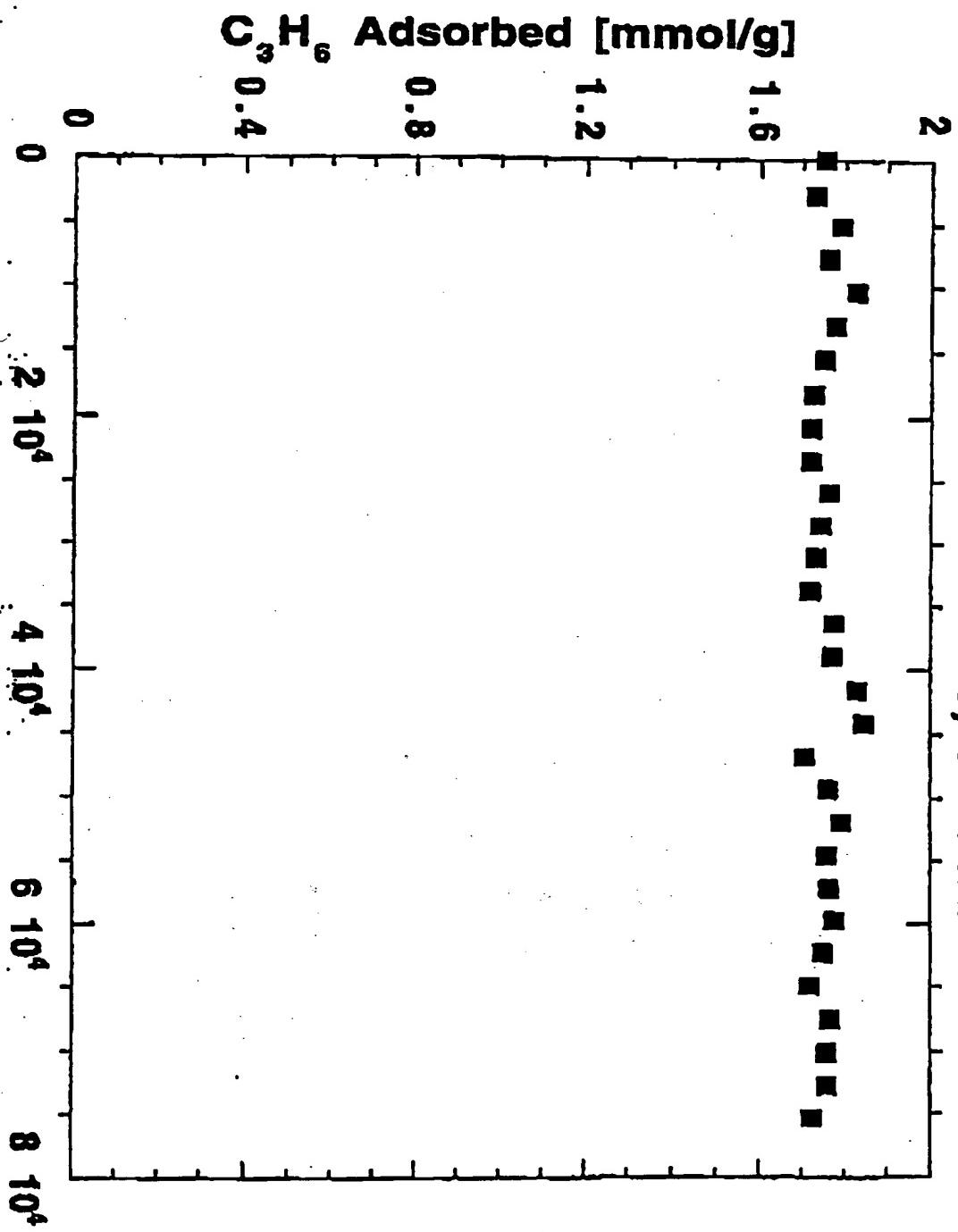


Fig 4

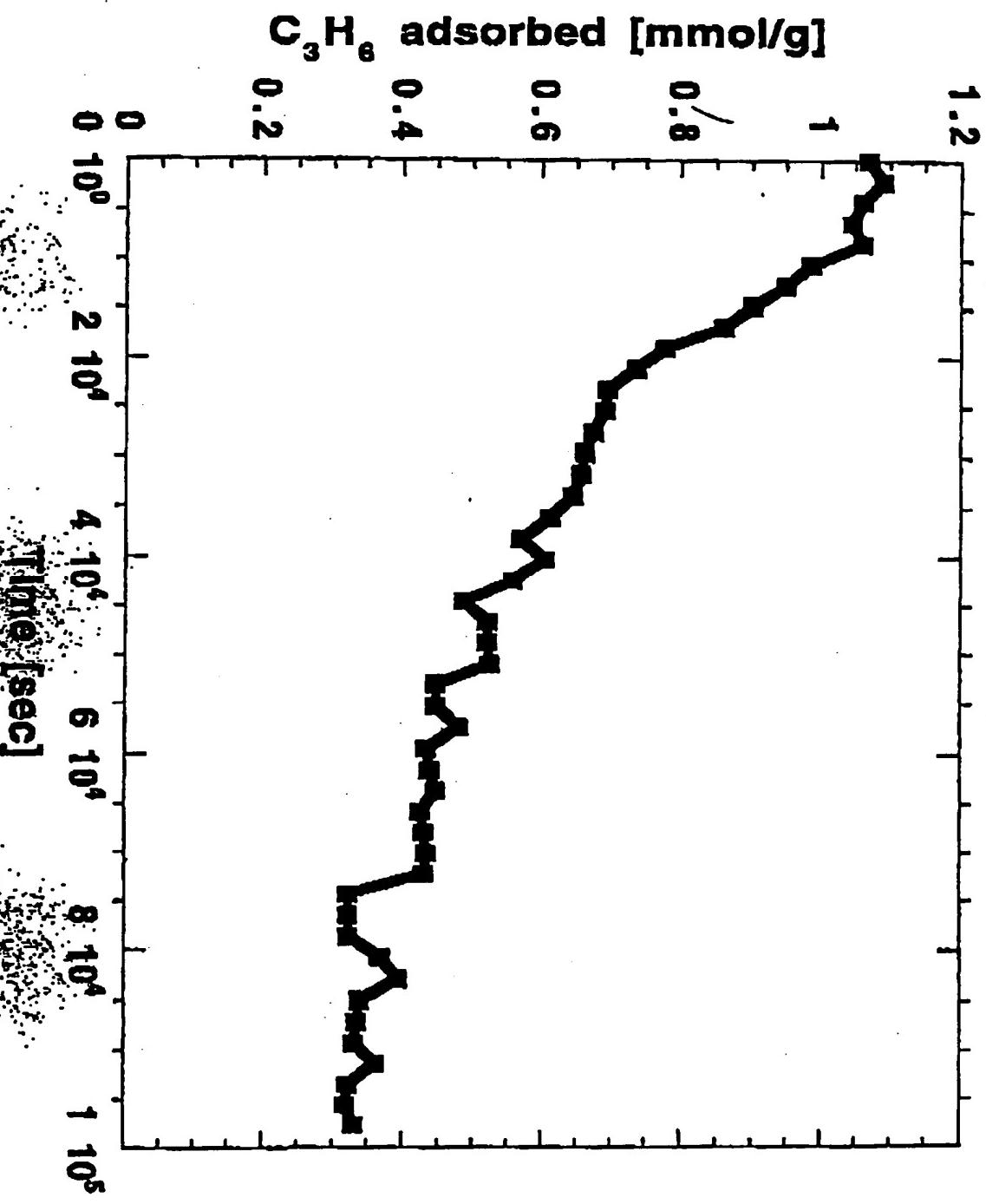
C_3H_6 Cyclic Adsorption on $AgNO_3/SiO_2$

Isotherm @ 50 °C; $P = 1$ atm



C_3H_6 Cyclic Adsorption on $AgNO_3/SiO_2$

Isotherm @ 120 °C; $P = 1$ atm



H₂S Adsorption and Desorption on SiO₂ (298K)

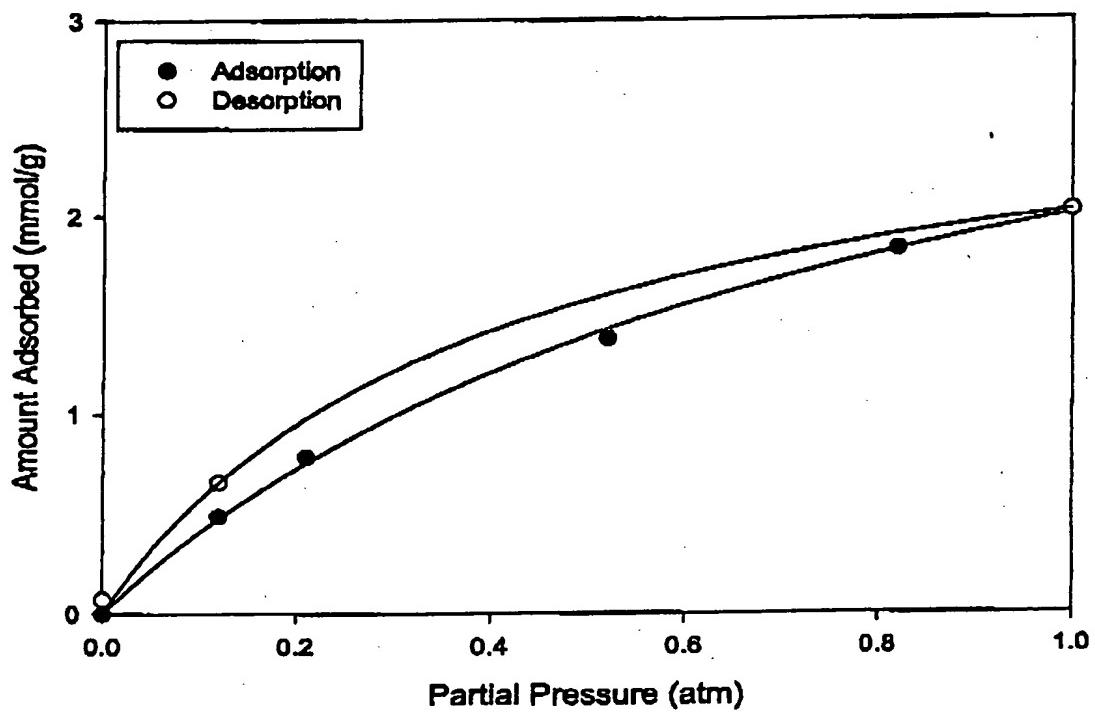
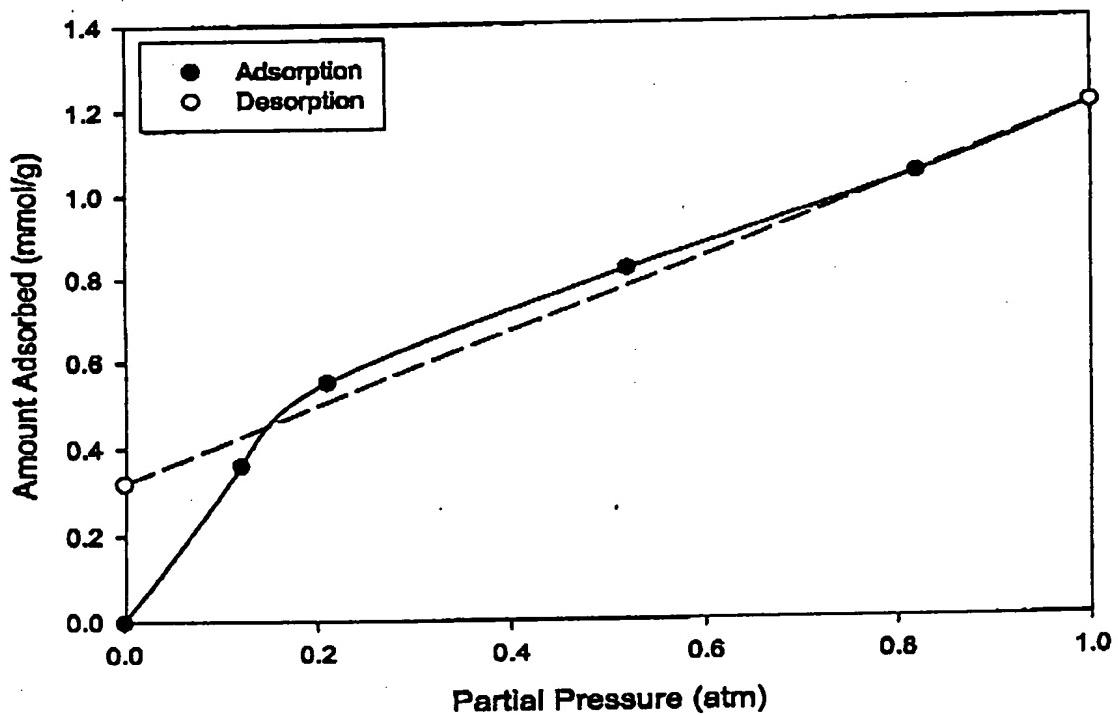


Fig 6

0020080 "TR682E960

H₂S Adsorption and Desorption on AgNO₃/SiO₂ (298K)



Fig

H₂S Adsorption and Desorption on AgNO₃/SiO₂ (343K)

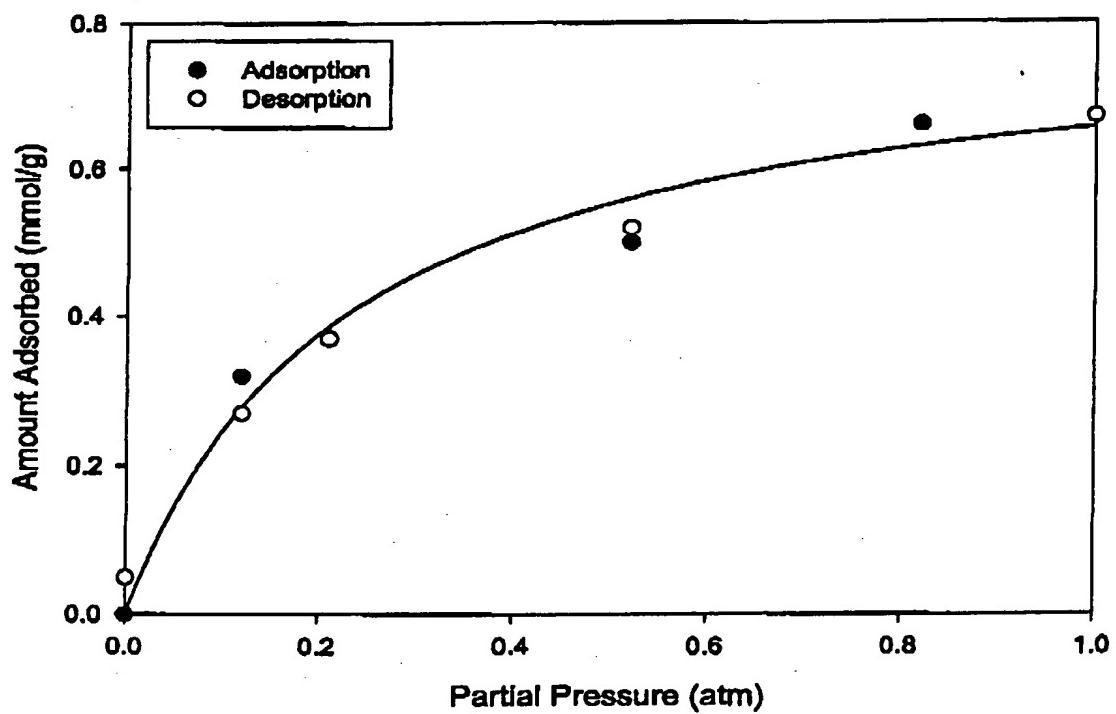


Fig 2

002030 " T 02E 960

Effect of H₂S Poisoning on AgNO₃/SiO₂
Capacity for C₃H₆ (343K)

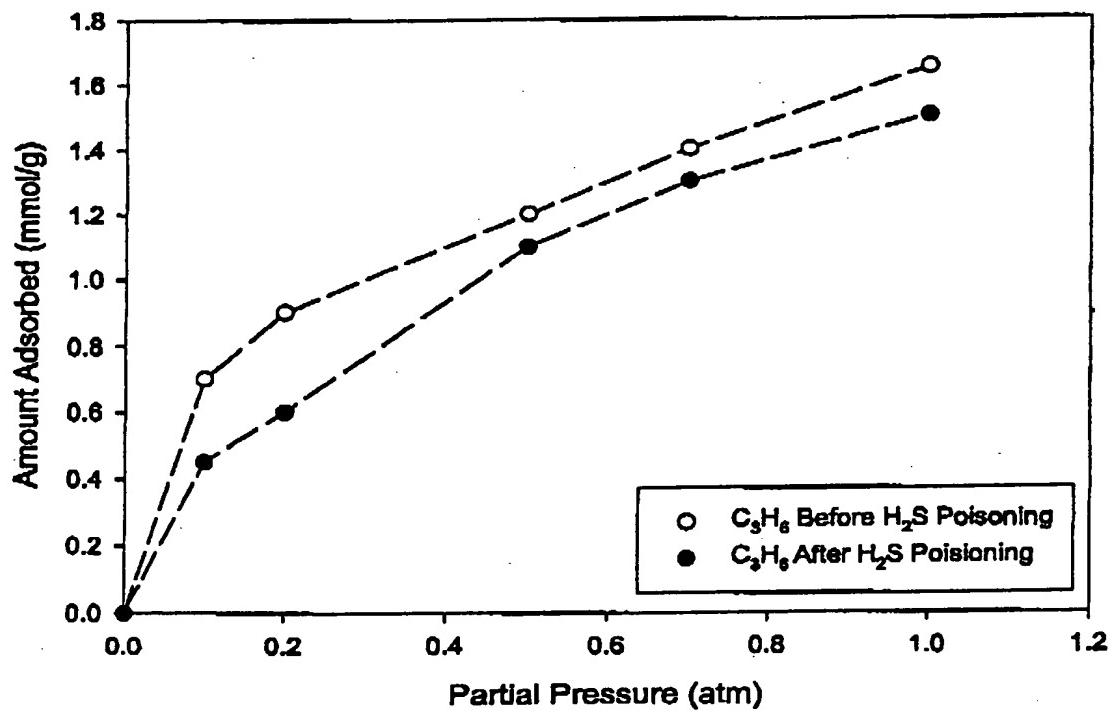
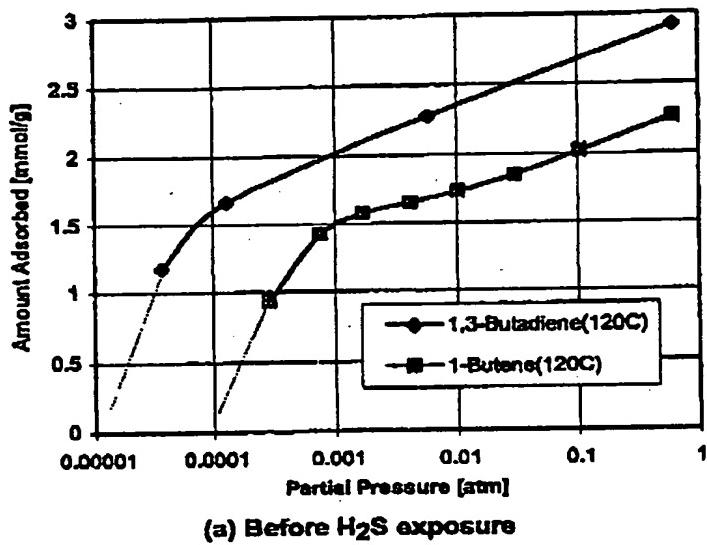
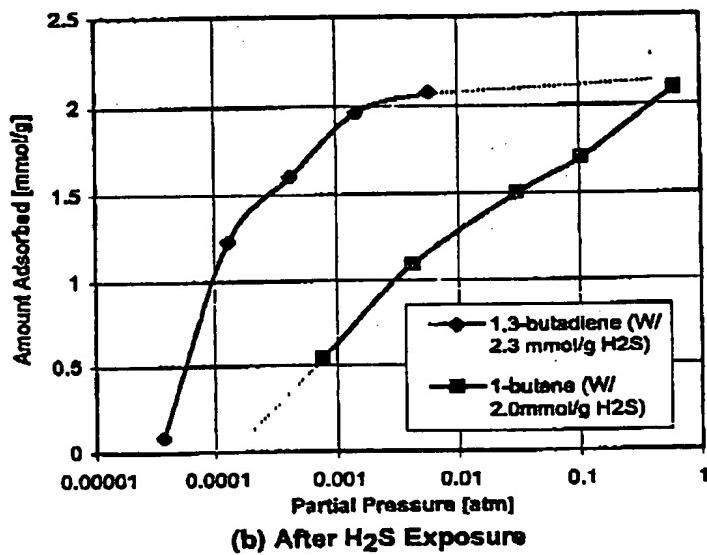


Figure 9

002030 - T682E960



(a) Before H₂S exposure



(b) After H₂S Exposure

Isotherms of 1,3-butadiene and 1-butene at 120 °C.

Fig 10

002000-T682E960

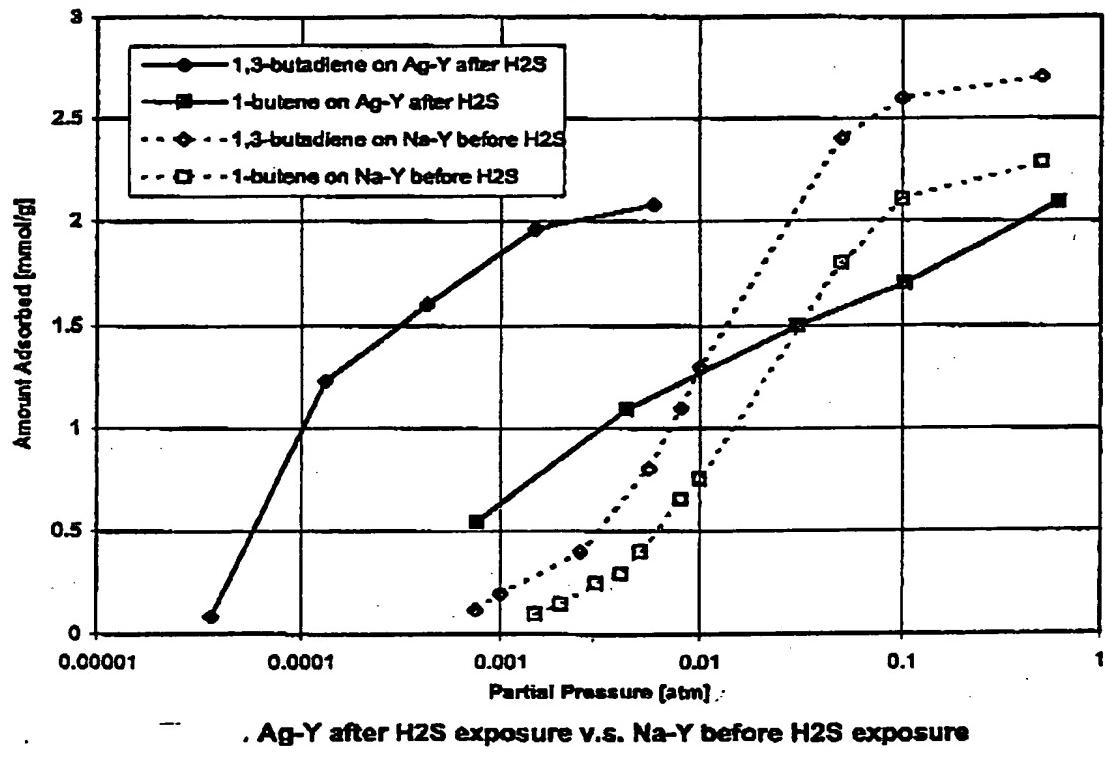


Fig. 11

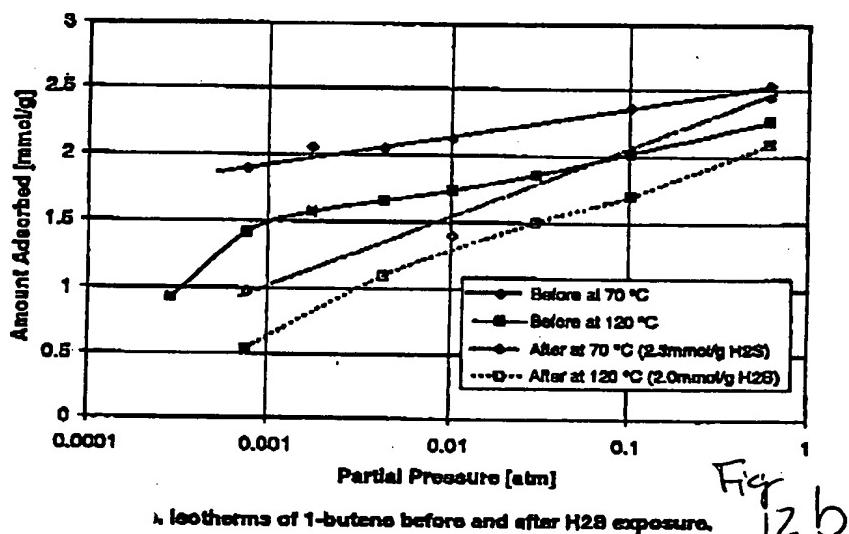
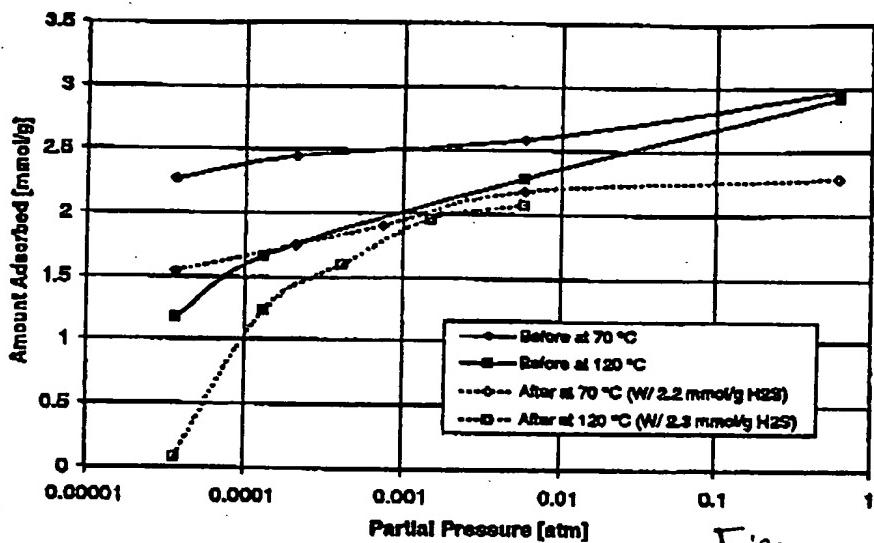
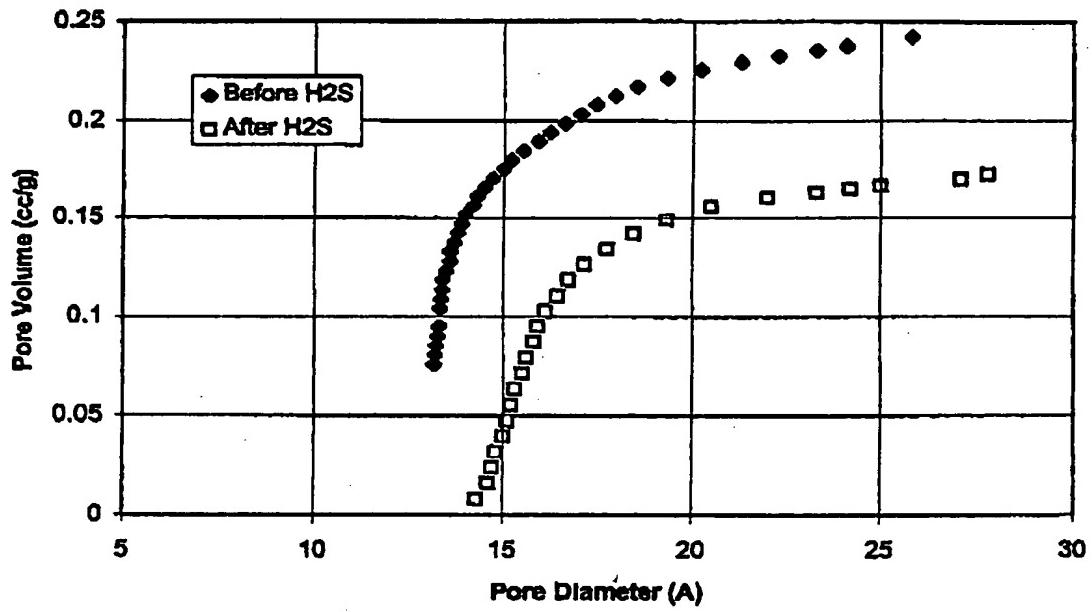


Table. Calculated Heat of Adsorption

	1,3-butadiene	1-butene
Before H ₂ S Exposure	24-29 kcal/mol	16-22 kcal/mol
After H ₂ S Exposure	7-11 kcal/mol	6-7 kcal/mol

Fig 12c

Fig 12



Cumulative pore volume of Ag-Y before and after H₂S exposure.

Fig 13

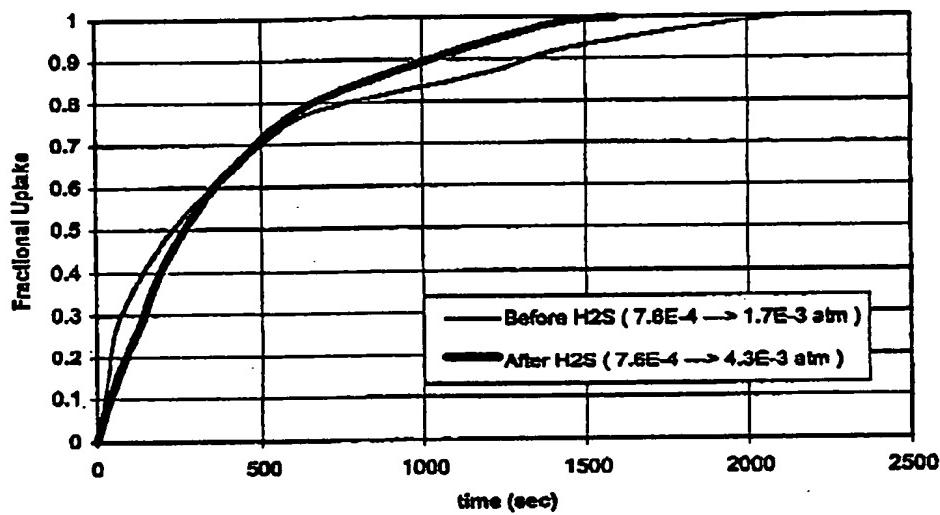


Fig 14 (a) 1-butene at 120 °C

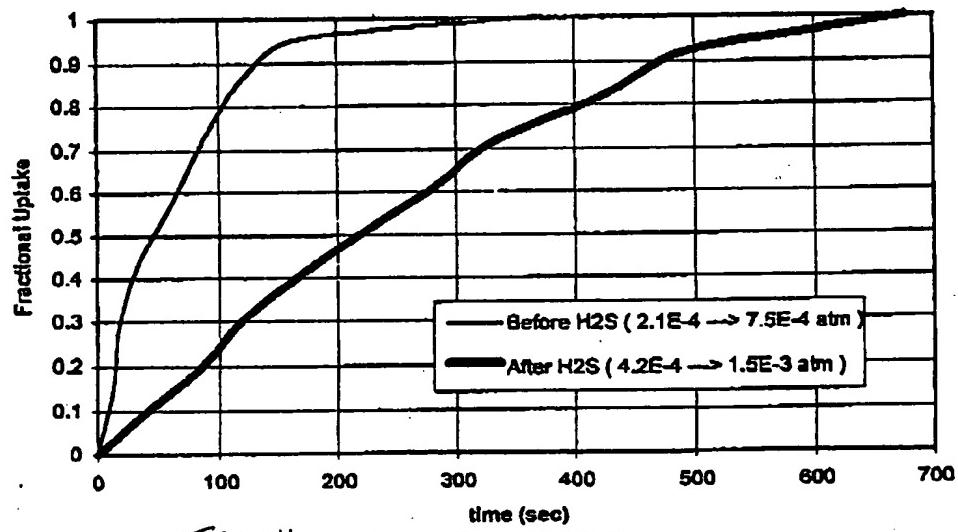


Fig 14 (b) 1,3-butadiene at 120 °C

Fractional uptake curves of 1-butene and 1,3-butadiene before and after H₂S exposure.

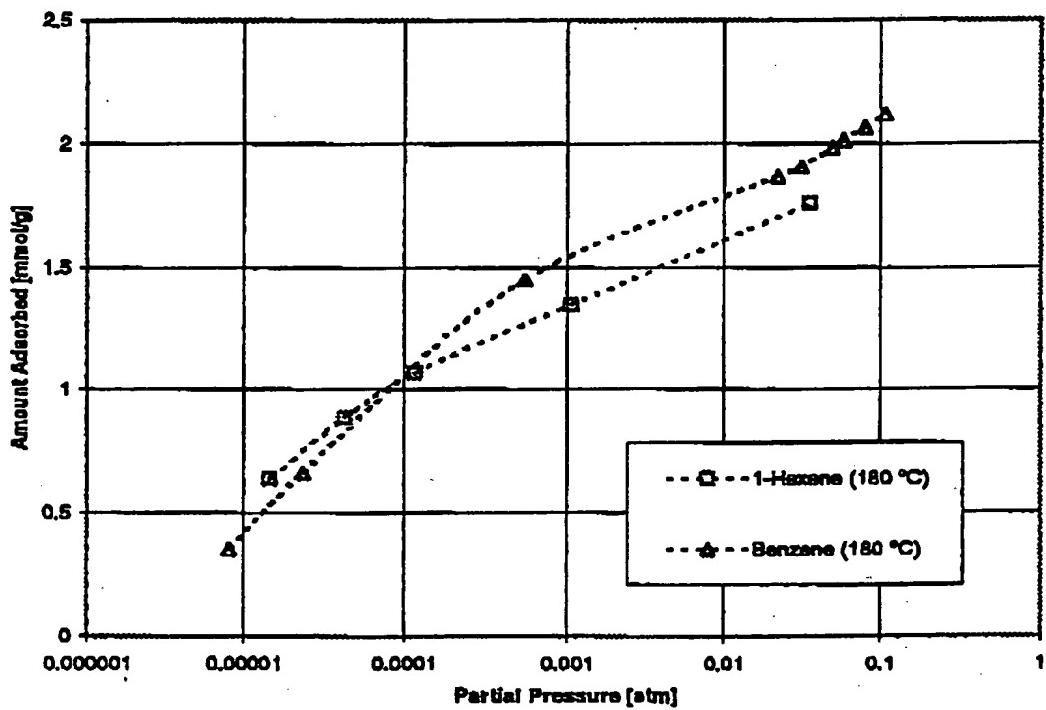
Table. Diffusion time constants (1/s)

	Before H ₂ S exposure	After H ₂ S exposure
1-butene	1.8×10^{-4} ($7.6 \times 10^{-4} \rightarrow 1.7 \times 10^{-3}$ atm)	1.5×10^{-4} ($7.6 \times 10^{-4} \rightarrow 4.3 \times 10^{-3}$ atm)
1,3-butadiene	8.7×10^{-4} ($2.1 \times 10^{-4} \rightarrow 7.5 \times 10^{-4}$ atm)	2.6×10^{-4} ($4.2 \times 10^{-4} \rightarrow 1.5 \times 10^{-3}$ atm)

Fig 14 C

Fig 14

2) Sorbent for purification of 1-Hexene by removal of Benzene.



Isotherms of benzene and 1-hexene on Ag-Y.

Fig 15

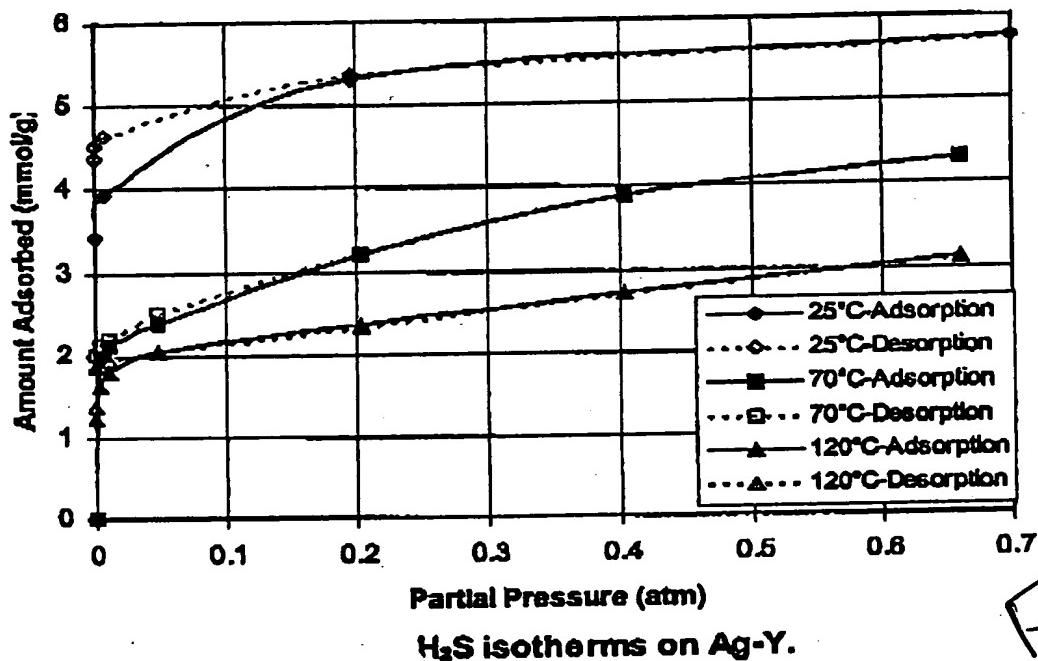


Fig 16

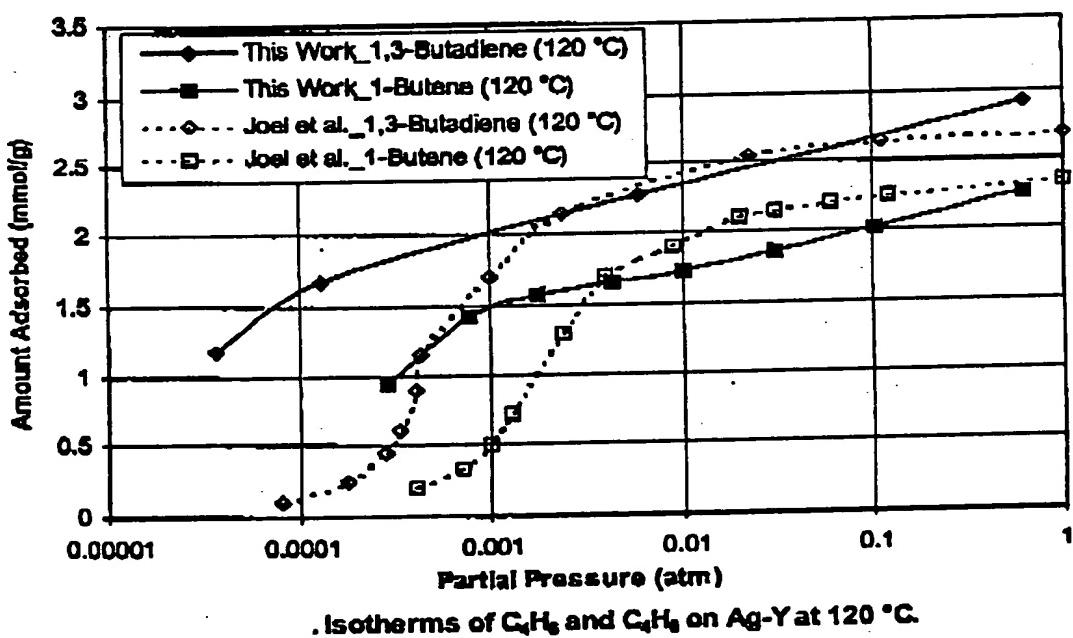


Fig 17

FIG - 18

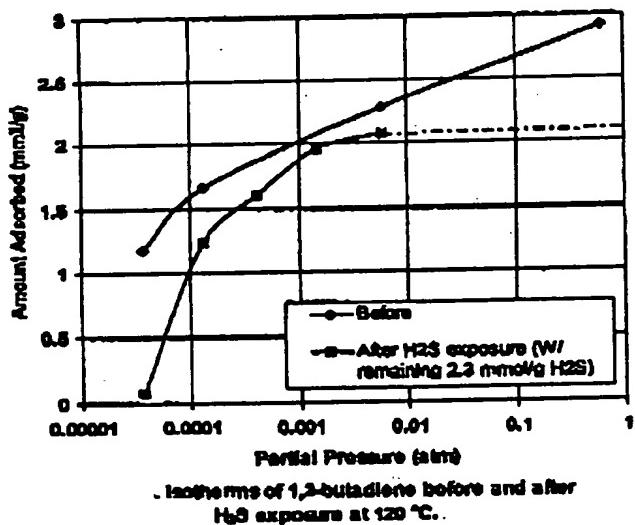


FIG - 19

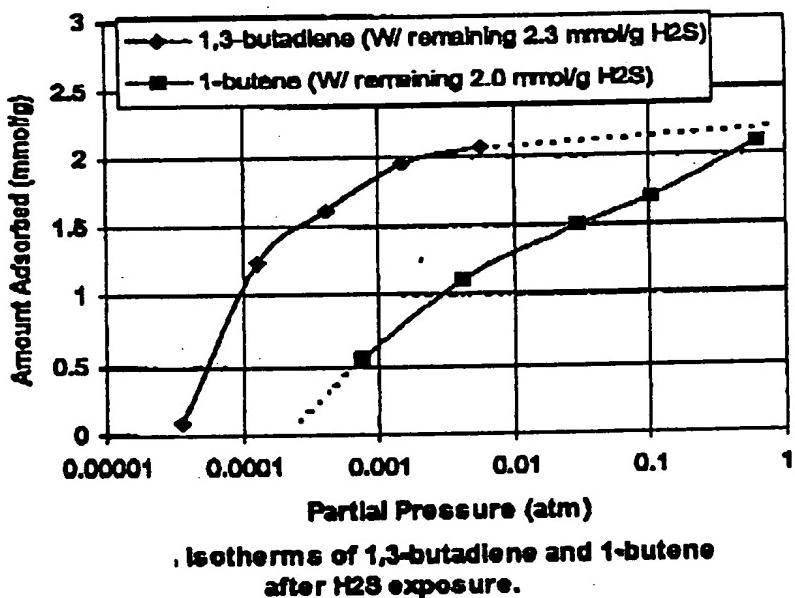
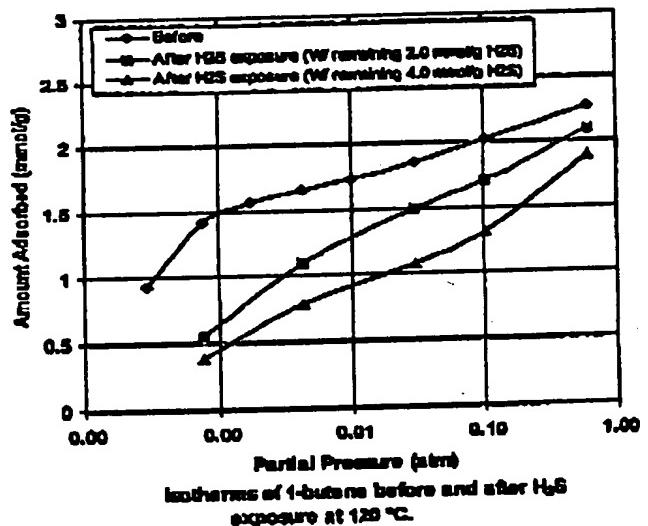


Fig 20